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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,362	06/05/2002	Thomas R. Anthony	049846-5003	8127

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PEPPER HAMILTON LLP
ONE MELLON CENTER, 50TH FLOOR
500 GRANT STREET
PITTSBURGH, PA 15219

EXAMINER	
HENDRICKSON, STUART L	

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/069,362	ANTHONY ET AL.	
	Examiner	Art Unit	
	Stuart Hendrickson	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 8/7/06.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 32-55 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 32-55 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The RCE filed 8/7/06 is accepted.

Claims 32-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strong et al. 4124690, alone or taken with Wentorf, Jr. 3609818.

Strong teaches in columns 4-6 treating a Type 1b by annealing at elevated temperature and pressure in a press, resulting in a change of color. This differs from the claims in not reciting a pressure-transmitting pill encasing the diamond, however Strong teaches placing graphite around the diamond. This is deemed to render the use of a pill as obvious, in order to gain the benefits recited in column 4. Therefore, it is deemed that the diamond is inside a pill- especially after the pressing starts and compacts the graphite powder. Concerning the brown color, column 6 teaches treating industrial diamonds. Because of the high price of jewel diamonds versus industrial diamonds, it can be inferred that industrial diamonds do not have the size or beauty of jewel diamonds and therefore the term 'industrial diamonds' implies or reasonably suggests brown diamonds, and thus renders their use obvious.

In so far as Strong does not teach or form a pill, or that the claims require the presence of a pill prior to insertion into the apparatus, Wentorf teaches in column 4 the use of talc (which contains MgO) or salt as a pressure-transmitting medium. Using talc in the process of Strong is an obvious expedient to attain uniform pressure on the diamond being treated and prevent inhomogeneous pressure and corresponding defects.

Concerning the various dependent claims, treating diamonds have a particular type, N content or platelets is an obvious expedient to make a more valuable material, as is repeating the treatment for improved effect.

Claims 32-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon 3134739.

Cannon teaches in column 2-4 placing colored diamond and graphite filler into a press and treating under HP/HT, with a resulting change in color. As the diamonds are yellow, it appears

they are Type 1A; if not, using the claimed type is an obvious expedient to treat an available diamond. Cannon does not describe the use of a pill, forming the graphite/diamond charge into a pill is an obvious expedient to avoid air pockets which would interfere with the pressure transmission or diffusion of the Al. Repeating the process is an obvious expedient to attain the desired effect. Column 6 line 72 teaches brown diamonds.

Applicant's arguments filed 8/7/06 have been fully considered but they are not persuasive.

The Declaration is not persuasive over Cannon, as the claims are open to using Al. Further, at the time of the invention, the science of diamond treatment had progressed beyond the Cannon experiments; one of ordinary skill would not be bound by the teachings of Cannon, but would use knowledge gained after Cannon to improve the Cannon process.

What has been shown is that conditions described in the specification as being effective to change color do not work on brown diamonds. When Al is used, Cannon reports a color change. Therefore, Cannon changes color. The recitation of colors is unclear because the color is not firmly a result of one phenomenon.

The claims are obvious over Strong/Wentorf for the reasons advanced.

The relationship- past (ie, at the time the invention was made) and present- between Diamond Innovations, GE and Bellataire is of interest and should be provided.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.

Stuart Hendrickson
examiner Art Unit 1754